



[4910-13-P]

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2014-0928; Directorate Identifier 2014-NM-040-AD; Amendment 39-18333; AD 2015-24-01]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for all Airbus Model A330-200 Freighter, A330-200, A330-300, A340-200, A340-300, A340-500, and A340-600 series airplanes. This AD was prompted by a report of skin disbonding on a composite side panel of a rudder installed on an A310 airplane. This AD requires a review of the maintenance records of the rudder to determine if any composite side shell panel repair has been done; a thermography inspection limited to the repair areas or complete side shells, as applicable, to identify possible in-service rudder repairs, damages, or fluid ingress; and applicable related investigative and corrective actions. We are issuing this AD to detect and correct the rudder skin disbonding, which could affect the structural integrity of the rudder, and could result in reduced controllability of the airplane.

**DATES:** This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may examine the AD docket on the Internet at <http://www.regulations.gov/#!docketDetail;D=FAA-2014-0928> or in person at the Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

For service information identified in this AD, contact Airbus SAS, Airworthiness Office – EAL, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 45 80; email [airworthiness.A330-A340@airbus.com](mailto:airworthiness.A330-A340@airbus.com); Internet <http://www.airbus.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0928.

**FOR FURTHER INFORMATION CONTACT:** Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1138; fax 425-227-1149.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Airbus Model A330-200 Freighter, A330-200, A330-300, A340-200, A340-300, A340-500, and A340-600 series airplanes. The NPRM published in the Federal Register on December 29, 2014 (79 FR 77972).

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2014-0033, dated February 4, 2014 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all Airbus Model A330-200 Freighter, A330-200, A330-300, A340-200, A340-300, A340-500, and A340-600 series airplanes. The MCAI states:

A case of skin disbonding was reported on a composite side panel of a rudder installed on an A310 aeroplane.

The investigation results revealed that this disbonding started from a skin panel area previously repaired in-service in accordance with the Structural Repair Manual (SRM).

The initial damage has been identified as a disbonding between the core and skin of the repaired area. This damage may not be visually detectable and likely propagates during normal operation due to the variation of pressure during ground-air-ground cycles.

Composite rudder side shell panels are also installed on A330 and A340 aeroplanes, which may have been repaired in-service using a similar method.

This condition, if not detected and corrected, could affect the structural integrity of the rudder, possibly resulting in reduced control of the aeroplane.

For the reasons described above, this [EASA] AD requires a one-time thermography inspection of a repaired rudder or a rudder whose maintenance records are incomplete and, depending on findings, accomplishment of applicable corrective and follow-up actions [including repetitive inspections].

The related investigative actions in this AD include, as applicable, an ultrasonic inspection, an elasticity laminate checker inspection, a tap test inspection, detailed inspections, and thermography inspections, and ventilation of the core. The repetitive inspections include detailed inspections and thermography inspections. The corrective actions in this AD include repairs.

The compliance time for the related investigative actions is before further flight after accomplishing the applicable inspection required by paragraph (g)(1) or (g)(2)(ii) of this AD.

The intervals for the repetitive inspections are either 900 flight hours or 1,000 flight cycles, depending on the applicable conditions identified in the service information.

The compliance times for the corrective actions range, depending on the applicable conditions identified in the service information, from before further flight to within 4,500 flight cycles but not to exceed 24 months after accomplishing the applicable inspection required by paragraph (g)(1) or (g)(2)(ii) of this AD.

You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2014-0928-0002>.

## **Comments**

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM (79 FR 77972, December 29, 2014) and the FAA's response to each comment.

**Request to Use the Latest Service Information**

American Airlines (AAL) and Delta Airlines (DAL) requested that we revise the NPRM (79 FR 77972, December 29, 2014) to cite the latest service information.

We agree with the commenters' request. Airbus has issued Airbus Service Bulletin A330-55-3043, Revision 1, dated August 20, 2014, Airbus Service Bulletin A340-55-4039, Revision 1, dated August 20, 2014, and Airbus Service Bulletin A340-55-5007, Revision 1, dated August 20, 2014. The new service information requires no additional work, and there are no new actions required by this AD. We have updated the AD with the latest service information, and we have also added a credit paragraph for previous actions done before the effective date of this AD using the service information cited in the NPRM (79 FR 77972, December 29, 2014).

**Request to Clarify the Structural Repair Manual Repairs that are Affected**

AAL requested that the NPRM (79 FR 77972, December 29, 2014) clarify the specific structural repair manual (SRM) repairs that are affected. AAL stated that paragraph (j) of the proposed AD states specific serial number ranges that are not affected by the AD provided that it is determined that no repair has been accomplished on the composite side shell panel of that rudder since first installation on the airplane. AAL believes this last sentence is too broad and not in line with the intent of the service information requirements. AAL commented that stating no repair has been accomplished limits acceptable repairs covered by an Airbus repair design approval sheet, designated engineering representative repairs, and other SRM repairs not affected by the improper practices that are the subject of the NPRM. AAL stated that paragraphs (g)(1) and paragraph (l) of the proposed AD list the affected SRM repairs in the service information figures.

We agree with the commenter's request. We have revised paragraph (j) of this AD to clarify the specific repairs accomplished as described in the SRM procedures identified in Figure A-GBBAA (Sheet 01 and 02) or Figure A-GBCAA (Sheet 02) of the service information specified in paragraphs (g)(1)(i) through (g)(1)(iii) of this AD, as applicable.

#### **Request to Add the Manufacturer Part Number**

DAL requested that the NPRM (79 FR 77972, December 29, 2014) include the manufacturer part numbers of the rudder serial numbers specified in paragraph (j), which provides only a list of rudder serial numbers not affected by the requirements of paragraphs (g) and (h) of the proposed AD. DAL commented that in the event of future aircraft acquisitions or rudder (component only) purchases, operators will need the manufacturer part numbers associated with the listed serial numbers to determine AD applicability.

We disagree with the commenter's request to add part numbers to paragraph (j) of this AD. The rudder serial number, regardless of the part number, is the key to identifying whether the rudder is not affected. Only rudders that have certain serial numbers that meet the conditions specified in paragraph (j) of this AD are exempt from the actions required by paragraphs (g) and (h) of this AD. Airbus has informed us that rudders with the same manufacturer part number might or might not be affected; it is the serial number that determines whether it is an affected rudder. We have not changed the AD in this regard.

#### **Conclusion**

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the

changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (79 FR 77972, December 29, 2014) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (79 FR 77972, December 29, 2014).

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

#### **Related Service Information under 1 CFR part 51**

Airbus has issued the following service information:

- Airbus Service Bulletin A330-55-3043, Revision 1, dated August 20, 2014.
- Airbus Service Bulletin A340-55-4039, Revision 1, dated August 20, 2014.
- Airbus Service Bulletin A340-55-5007, Revision 1, dated August 20, 2014.

The service information describes procedures for a review of the maintenance records of the rudder to determine if any composite side shell panel repair has been done; a thermography inspection limited to the repair areas or complete side shells, as applicable, to identify possible in-service rudder repairs, damages, or fluid ingress; and applicable related investigative and corrective actions. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this AD.

## **Costs of Compliance**

We estimate that this AD affects 55 airplanes of U.S. registry.

We also estimate that it would take about 45 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Required parts would cost about \$0 per product. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$210,375, or \$3,825 per product.

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this AD.

## **Paperwork Reduction Act**

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB control number. The control number for the collection of information required by this AD is 2120-0056. The paperwork cost associated with this AD has been detailed in the Costs of Compliance section of this document and includes time for reviewing instructions, as well as completing and reviewing the collection of information. Therefore, all reporting associated with this AD is mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at 800 Independence Ave., SW, Washington, DC 20591, ATTN: Information Collection Clearance Officer, AES-200.

## **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator.



“Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov/#!docketDetail;D=FAA-2014-0928>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**2015-24-01 Airbus:** Amendment 39-18333. Docket No. FAA-2014-0928; Directorate Identifier 2014-NM-040-AD.

#### **(a) Effective Date**

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to all airplanes identified in paragraphs (c)(1) and (c)(2) of this AD, certificated in any category.

(1) Airbus Model A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes, all manufacturer serial numbers.

(2) Airbus Model A340-211, -212, -213, -311, -312, -313, -541, and -642 airplanes, all manufacturer serial numbers.

**(d) Subject**

Air Transport Association (ATA) of America Code 55, Stabilizers.

**(e) Reason**

This AD was prompted by a report of skin disbonding on a composite side panel of a rudder installed on an A310 airplane. We are issuing this AD to detect and correct the rudder skin disbonding, which could affect the structural integrity of the rudder, and could result in reduced controllability of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Review the Maintenance Records**

Within 24 months after the effective date of this AD: Review the maintenance records of the rudder to determine if any composite side shell panel repair has been accomplished on the rudder since first installation on an airplane.

(1) If, based on the maintenance record review, any repair identified in Figure A-GBBAA (Sheet 01 and 02) or Figure A-GBCAA (Sheet 02) of the service information

specified in paragraphs (g)(1)(i) through (g)(1)(iii) of this AD is found: Within 24 months after the effective date of this AD, do a thermography inspection for repair, damages, and fluid ingress, limited to the repaired areas, in accordance with the Accomplishment Instructions of the applicable service information specified in paragraphs (g)(1)(i) through (g)(1)(iii) of this AD:

(i) Airbus Service Bulletin A330-55-3043, Revision 1, dated August 20, 2014 (for Model A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes).

(ii) Airbus Service Bulletin A340-55-4039, Revision 1, dated August 20, 2014 (for Model A340-211, -212, -213, -311, -312, and -313 airplanes).

(iii) Airbus Service Bulletin A340-55-5007, Revision 1, dated August 20, 2014 (for Model A340-541 and -642 airplanes).

(2) For a rudder for which maintenance records are unavailable or incomplete, do the actions specified in paragraphs (g)(2)(i) and (g)(2)(ii) of this AD:

(i) No later than 3 months before accomplishment of the thermography inspection, as required by paragraph (g)(2)(ii) of this AD, contact Airbus to request related rudder manufacturing data by submitting the serial number of the rudder to Airbus.

(ii) Within 24 months after the effective date of this AD: Do a thermography inspection for any repair on complete side shells to identify and mark any repair, in accordance with the Accomplishment Instructions of the applicable service information specified in paragraphs (g)(1)(i) through (g)(1)(iii) of this AD.

#### **(h) Related Investigative Actions, Corrective Actions, and Repetitive Inspections**

After the inspection as required by paragraph (g)(1) or (g)(2) of this AD: At the applicable compliance times specified in paragraph 1.E., “Compliance,” of Tables 3, 4A, 4B, 4C, 4D, and 5 of the applicable service information specified in paragraphs (g)(1)(i) through (g)(1)(iii) of this AD, accomplish all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of the applicable service information specified in paragraphs (g)(1)(i) through (g)(1)(iii) of this AD; except as provided by paragraphs (i)(1) and (i)(2) of this AD. Options provided in the service information specified in paragraphs (g)(1)(i) through (g)(1)(iii) of this AD for accomplishing the actions are acceptable for the corresponding requirements of this paragraph provided that the related investigative and corrective actions are done at the applicable times specified in paragraph 1.E., “Compliance,” of the applicable service information specified in paragraphs (g)(1)(i) through (g)(1)(iii) of this AD, including applicable repetitive inspection intervals, except as required by paragraphs (i)(1) and (i)(2) of this AD. Thereafter repeat the inspections of the restored and repaired areas at the applicable compliance time specified in paragraph 1.E., “Compliance,” of Tables 3, 4A, 4B, 4C, 4D, and 5 of the applicable service information specified in paragraphs (g)(1)(i) through (g)(1)(iii) of this AD.

#### **(i) Exceptions to the Service Information**

(1) Where the applicable service information specified in paragraphs (g)(1)(i) through (g)(1)(iii) of this AD specifies a compliance time relative to the date of the service information, this AD requires compliance within the specified compliance time after the effective date of this AD.

(2) If the service information in paragraphs (g)(1)(i) through (g)(1)(iii) of this AD specifies to contact Airbus: At the applicable compliance times specified in paragraph 1.E., “Compliance,” of the applicable service information specified in paragraphs (g)(1)(i) through (g)(1)(iii) of this AD, repair using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or Airbus’s EASA Design Organization Approval (DOA).

**(j) Provisions for Certain Airplanes**

Airplanes fitted with a rudder having a serial number (S/N) that is not in the range of S/N TS-1001 through S/N TS-1043 inclusive, S/N TS-2001 through S/N TS-2074 inclusive, S/N TS-3000 through S/N TS-3525 inclusive, S/N TS-4001 through S/N TS-4170 inclusive, S/N TS-6001 through S/N TS-6246 inclusive, or S/N TS-5001 through S/N TS-5138 inclusive, are not affected by the requirements of paragraphs (g) and (h) of this AD provided that it is determined that no repair has been accomplished as described in the procedures identified in Figure A-GBBAA (Sheet 01 and 02) or Figure A-GBCAA (Sheet 02) of the service information specified in paragraphs (g)(1)(i) through (g)(1)(iii) of this AD, as applicable, on the composite side shell panel of that rudder since first installation on an airplane.

**(k) Parts Installation Limitations**

As of the effective date of this AD, no person may install, on any airplane, a rudder, unless the record review and thermography inspection specified in paragraph (g) of this AD has been done on that rudder and thereafter all applicable related investigative

actions, repetitive inspections, and corrective actions are done as required by paragraph (h) of this AD, except as provided in paragraph (j) of this AD.

**(l) Repair Prohibition**

As of the effective date of this AD, no person may accomplish a side shell repair on any rudder using a structure repair manual procedure identified in Figure A-GBBAA (Sheet 01 and 02) or Figure A-GBCAA (Sheet 02) of the service information specified in paragraphs (g)(1)(i) through (g)(1)(iii) of this AD, as applicable, on any airplane.

**(m) Credit for Previous Actions**

This paragraph provides credit for the actions specified in this AD, if those actions were performed before the effective date of this AD using the service information in paragraphs (m)(1), (m)(2), and (m)(3) of this AD.

(1) Airbus Service Bulletin A330-55-3043, dated February 7, 2013.

(2) Airbus Service Bulletin A340-55-4039, dated February 7, 2013.

(3) Airbus Service Bulletin A340-55-5007, dated February 7, 2013.

**(n) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind

Avenue SW., Renton, WA 98057-3356; telephone 425-227-1138; fax 425-227-1149.

Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

**(2) Contacting the Manufacturer:** For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the EASA; or Airbus's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

**(o) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2014-0033, dated February 4, 2014, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0928.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (p)(3) and (p)(4) of this AD.

**(p) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.



- (i) Airbus Service Bulletin A330-55-3043, Revision 1, dated August 20, 2014.
- (ii) Airbus Service Bulletin A340-55-4039, Revision 1, dated August 20, 2014.
- (iii) Airbus Service Bulletin A340-55-5007, Revision 1, dated August 20, 2014.
- (3) For service information identified in this AD, contact Airbus SAS,

Airworthiness Office – EAL, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 45 80; email [airworthiness.A330-A340@airbus.com](mailto:airworthiness.A330-A340@airbus.com); Internet <http://www.airbus.com>.

(4) You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on November 9, 2015.

**Michael Kaszycki,**  
*Acting Manager,*  
*Transport Airplane Directorate,*  
*Aircraft Certification Service.*

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